Hilectro

AeS Hydraulic Servo System

Hilectro Servo System

HAITIAN
DRIVE SYSTEMS

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Innovation Drives Future

www.haitiandrive.com

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PROFILE

About Haitian Drive Systems

Ningbo Haitian Drive Co., Ltd. is one of the four pillar industries of Haitian Group. Relying on the platform advantage of Haitian Group, Haitian has become a leading manufacturer in the field of servo control systems (servo motors, servo drives, control systems), automation field (servo robots and its peripheral automation, robot automation, magnetic templates, functional components), new energy field (leading manufacturer of new energy electric forklifts) and hydraulic transmissions (hydraulic motors, hydraulic pumps, hydraulic components).

Haitian Drive: Innovation Drives Future

Haitian Drive adheres to the purpose of Haitian Group's innovation and puts forward the slogan of "Innovation Drives the Future". We continue to innovate to improve the company's product quality, service quality, and thus enhance the overall competitiveness of our products. We firmly believe that good products can reassure customers and that good products can enhance market competitiveness for customers.

Innovation Drives the Future

Brand Introduction

Domestic First-class Servo System Supplier

Haitian Drive specializes in manufacturing the world's leading servo systems and providing customers with efficient and stable energy-saving power solutions. At present, the annual output of the Company's high-power servo system is more than 60,000 sets. By the end of 2015, the total supply exceeds 300,000 sets. Its technological level and manufacturing strength are synchronized with the highest level in the world, and far ahead in China.

Technology and R & D Strength

The size of the servo driver produced by the Company covers 5.5KW-220KW; the rated power of the AC permanent magnet servo motor is 0.4KW-300KW, the rated torque is 2.2Nm-20000Nm, and the rated speed is 10RPM-3000RPM. At present, the whole series of servo systems have been widely used in injection moulding, die casting, aluminum extrusion, oil pressure and other fields.

Production Equipment

Haitian Drive realized the commissioning of the new motor plant in July 2015. The plant covers an area of 21,000 square meters and adopts the most advanced motor manufacturing technology in China. The production capacity of the motor reaches 80,000 sets, the current annual output is 60,000 sets, the number of workers is about 500, the scale is the largest in the domestic industry and the technology is far ahead.

创新驱动未来
Innovation Drives Future.

Robot Automatic Painting Assembly Line

Auto-assembly Line for Vacuum Pouring of Epoxy Resin

Robot Automatic Painting Assembly Line

Hot Shrinkage of Robot Case

Introduction of Haitian Drive AeS Hydraulic Servo

Haitian Drive is the earliest manufacturer in China to develop energy-saving hydraulic servo system. In 2004, the first set of hydraulic servo system was successfully developed and quickly applied to injection moulding machine products. Over the years, Haitian Drive has been optimizing and improving its hydraulic servo system. At present, many hydraulic servo solutions have been put forward for different industries and application environments, and developed into a complete series: AeS-G; AeS-DG; AeS-BG; AeS-P; AeS-BP.

The optional fuel pump includes internal gear pump, double displacement piston pump and bidirectional high pressure pump and the servo motor includes three cooling modes: natural cooling, air cooling and liquid cooling, which can be used in harsh environments including high dust and high temperature.

Characteristics of AeS Hydraulic Servo System

【 High efficiency and energy saving 】

1

In the field of injection molding machine, die-casting machine, hydraulic equipment and so on can achieve 20% 80% Energy saving effect, and significantly reduce equipment tank volume, cleaner, more environmentally friendly.

【Rich configuration】

2

It supports gear pump, piston pump and other oil pumps and can be applied to hydraulic equipment in thepressurerange of 0-320 bar.

【Reduce maintenance requirements】

3

Air-cooled or closed liquid-cooled solutions for different on-site environments for high-dust, harsh applications.

AeS 系统

【Excellent performance】

4

It can quickly and easily realize speed closed-loop control, pressure closed-loop control and parameter self-adaptation. The pressure closed-loop fluctuation is less than 0.5 bar. When the high-precision position sensor is configured, the 0.01mm position control accuracy can be achieved.

【Cost reduction】

5

Compared with the electric drive system, the system realizes fast and high-precision control while significantly reducing the cost of the system.

【Improve applicability 】

6

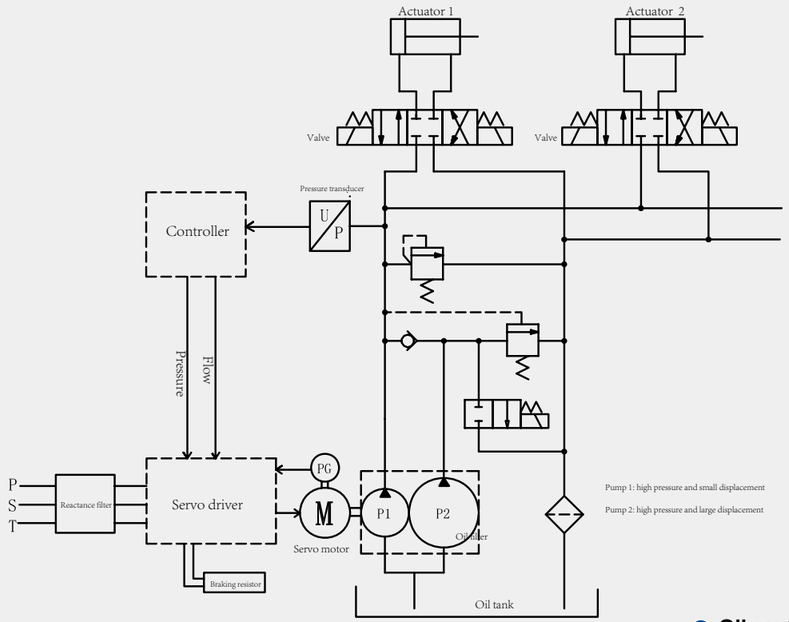
For continuous high load conditions, full-speed full-pressure conditions, high-speed low-pressure conditions and low-speed high-pressure conditions, different niche products are used to achieve the best performance and the most competitive price.

【Improve compatibility and expansibility 】

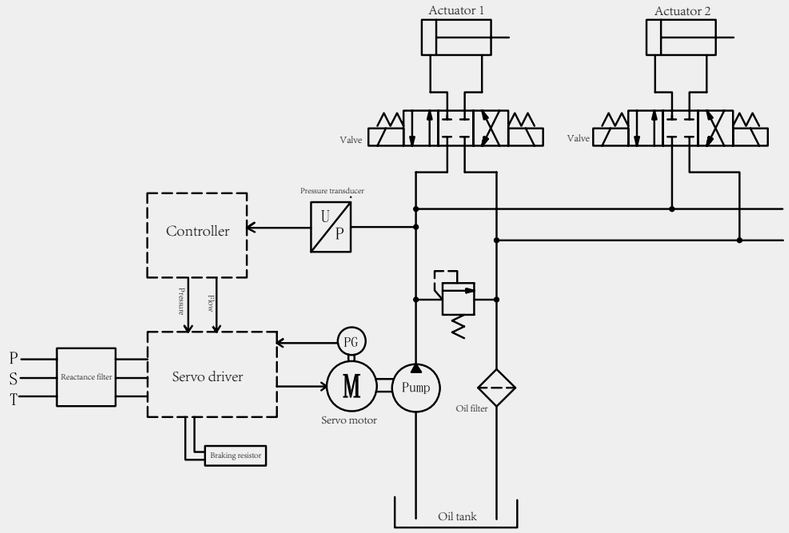
7

High-speed buses such as CANopen, VARAN and EtherCAT are optional, and the system has strong expansion capability.

AeS open loop system example



● Oil route diagram AeS-DG



● Oil route diagramAeS-G/ AeS-P

Naming Rules Table of AeS Servo System

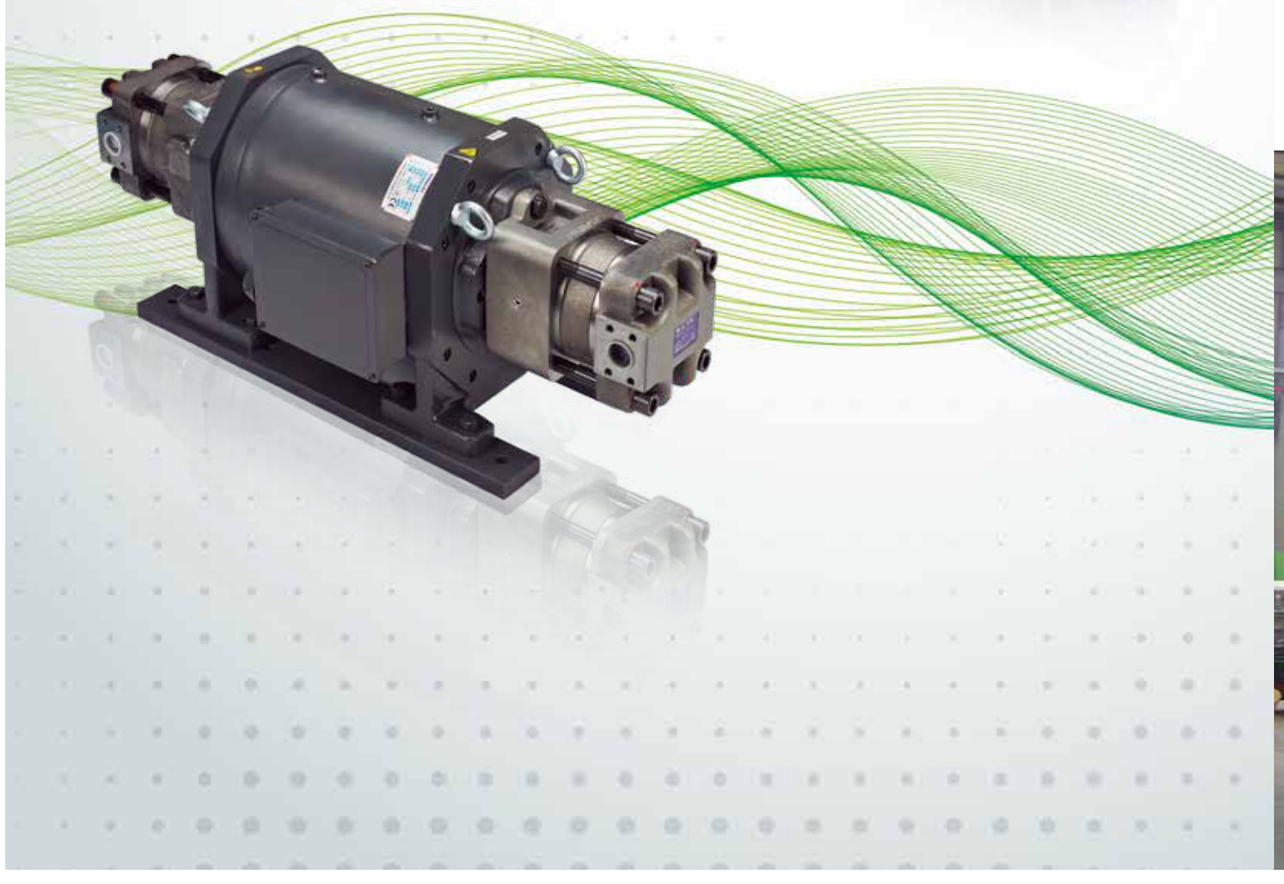
Name description: XX ① XX ② X ③ X ④ X ⑤ X ⑥ (X) ⑦

①	Oil pump type	G: internal gear pump	DG: tandem gear pump	P: piston pump	B: vane pump
② ③ ④	Maximum pressure (②) Maximum pressure: unit Mpa	Displacement(③):A:6cc/rev B:8cc/rev C:11.5cc/rev D:16cc/rev E:20cc/rev F:25cc/rev	G:32cc/rev H:40cc/rev I:50cc/rev J:63cc/rev K:80cc/rev L:100cc/rev	M:125cc/rev N:140cc/rev O:160cc/rev P:180cc/rev Q:200cc/rev R:250cc/rev	Speed(④): 1:500RPM 6:1700RPM 2:750RPM 7:2000RPM 3:1000RPM 8:2500RPM 4:1200RPM 5:1500RPM
⑤ ⑥	Voltage level + cooling method	Voltage level (⑤):1: 220V 2: 380V			Cooling method (⑥): N: natural cooling F: air cooling W: liquid cooling
⑦	Reserve				

● *Taking AeS-G.14A1.2W as an example, the above models indicate that the basic specifications of the servo system are: G: internal gear pump; 14A1: maximum pressure 14Mpa; displacement: 6cc/rev; speed: 500RPM; 2W: voltage level 380V; cooling method: liquid cooling.*

Industry application examples

Hilectro Liquid Cooling Servo System



Aluminum Extrusion Press (Open)

Characteristics of special hydraulic servo system for aluminum extrusion press

The servo AeS-P system developed by Haitian Drive is equipped with a quantitative high-pressure piston pump, which can replace the expensive variable displacement piston pump. On the basis of simplifying the hydraulic system, energy can be saved by providing flow on demand and improving motor efficiency. In addition, a special AeS-G medium and high pressure hydraulic servo system has been developed by Haitian Drive for the aluminum extrusion press. The system can continuously provide 320 bars of pressure. Without increasing noise, the maximum speed of motor and special servo oil pump can be increased to 2000 RPM, which greatly improves the efficiency of servo motor and oil pump when they work, improves the energy-saving effect and greatly reduces the displacement of oil pump and the volume of motor. The cost-performance ratio of the product has been improved, and the standardized oil pump has ensured the supply and maintenance. At present, the single motor of AeS-G system (using two 125 cc special oil pumps) can provide the output capacity with the maximum flow up to 500 L/min and the maximum working pressure more than 280 bars.

Product characteristics and advantages

> Abundant configuration: oil pump can be equipped with imported servo vane pump, imported high-pressure gear pump, quantitative high-pressure plunger pump, etc., to meet the needs of different pressure levels and different customers; the liquid-cooling servo motor for extrusion industry covers 50-2500Nm torque, and the speed is 1000 RPM, 1200 RPM, 1500 RPM, 1800 RPM and many other options; it can also be customized on demand. Drivers and servo motors can be air cooling or liquid cooling model with a maximum power of 315KW.

> Energy saving and environmental protection: by using electro-hydraulic servo technology, the overflow loss of the equipment can be reduced, the power part can save energy by 20-45%, the whole machine can save energy by 5-15%, and the equipment oil temperature can be reduced so as to reduce the oil quantity appropriately.

> High performance: make full use of the super-speed overload performance of hydraulic servo, improve the speed of auxiliary operation and improve the production efficiency of the equipment. Compared with the traditional equipment, the equipment using Haitian Drive hydraulic servo technology can improve the processing capacity by 4-10%, and improve the quality of the finished product.

> Long life: the matched servo vane pump, imported high-pressure gear pump and quantitative high-pressure piston pump have undergone rigorous testing. The high pressure pump has a rated pressure of 320 bar and excellent oil resistance.

> Low noise

Product application

Industry application examples

Hilectro Liquid Cooling Servo System

Model naming rules

HP1 18 11 – G 15 2 F – R1 P 4

- Series No. HP1
- Seat No.
- Characteristic No.
- Type
- Rated speed (rated speed/100. For example, 15 indicates 1500 rpm)
- Power level (AC220V: 1 AC380V: 2 AC480V: 3)
- Cooling mode (natural air cooling: A forced air cooling: F liquid cooling: W)
- Encoder: rotary encoder (R1, R2, ..., Rn); Absolute encoder (E1, E2, ++, En); Incremental encoder sin/cos (S1, S2, +++, Sn); Photoelectric encoder (L1, L2, +++, Ln)
- Drive end of drive shaft
- Outgoing mode of power cable and encoder signal line

Aluminum die casting machine (open)

Characteristics of special hydraulic servo system for aluminum die casting machine

T he corresponding process is high speed high pressure, low speed high pressure, high speed low pressure, etc., wherein the high speed high pressure time is very short. Therefore, the asynchronous motor used in the traditional die casting machine often uses more than 2 times of overload. When using the servo system, because of the characteristics of permanent magnet servo motor, the overload capacity of the special motor for non-die-casting machine is relatively weak at full speed. For this reason, Haitian Drive has developed a special servo hydraulic system for die casting machine, which improves the instantaneous overload capability of the servo motor and reduces the installed power of the equipment.

Targeted characteristics and advantages of product

Long life:
the matched internal gear pump has excellent oil resistance and long service life.

High performance:
special motor specially designed is used to enhance the overload capacity of motor and achieve fast response, which can improve the production efficiency of the equipment and shorten the finished product cycle.

Low noise

Energy saving and environmental protection:
the energy saving rate can reach 40%-70%.

Product application

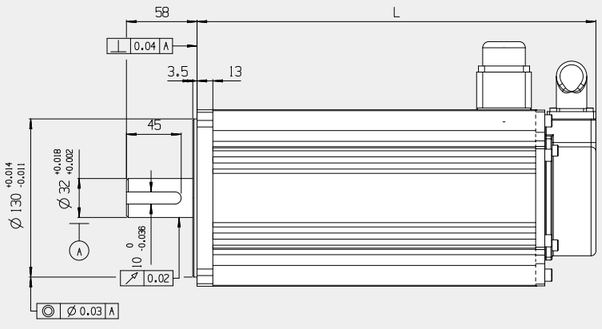
A List of Motor Parameters and Shapes

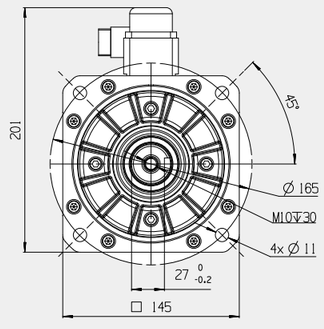
HP113-A

Model	Rated torque(Nm)	Rated current (A)	KT (Nm/A)	Rated power(kW)	Rated speed(rpm)	Back EMF EMK(V)	Powerlevel (V)	Rated frequency f(Hz)	Inertia ($kg.m^2.10^{-3}$)
HP11309-G152A- □□□□	10.5	3.7	2.8	1.6	1500	304	380	100.0	1.29
HP11309-G202A- □□□□	10	4.6	2.2	2.1	2000	307	380	133.3	1.29
HP11309-G302A- □□□□	9	6.2	1.5	2.8	3000	304	380	200.0	1.29
HP11309-G352A- □□□□	8.5	7.0	1.2	3.1	3500	301	380	233.3	1.29
HP11312-G152A- □□□□	14	4.8	2.9	2.2	1500	305	380	100.0	1.62
HP11312-G202A- □□□□	13.5	6.0	2.2	2.8	2000	309	380	133.3	1.62
HP11312-G302A- □□□□	12	8.3	1.4	3.8	3000	305	380	200.0	1.62
HP11312-G352A- □□□□	11	8.5	1.3	4.0	3500	314	380	233.3	1.62
HP11315-G152A- □□□□	17.5	6.2	2.8	2.7	1500	304	380	100.0	1.96
HP11315-G202A- □□□□	16.5	7.7	2.1	3.5	2000	304	380	133.3	1.96
HP11315-G302A- □□□□	15	10.3	1.5	4.7	3000	304	380	200.0	1.96
HP11315-G352A- □□□□	14	11.5	1.2	5.1	3500	302	380	233.3	1.96
HP11318-G152A- □□□□	21	7.0	3.0	3.3	1500	310	380	100.0	2.3
HP11318-G202A- □□□□	20	9.2	2.2	4.2	2000	304	380	133.3	2.3
HP11318-G302A- □□□□	18	12.3	1.5	5.7	3000	310	380	200.0	2.3
HP11318-G352A- □□□□	17	13.0	1.3	6.2	3500	319	380	233.3	2.3
HP11321-G152A- □□□□	24.5	8.2	3.0	3.8	1500	318	380	100.0	2.64
HP11321-G202A- □□□□	23.5	10.5	2.2	4.9	2000	311	380	133.3	2.64
HP11321-G302A- □□□□	21	14.0	1.5	6.6	3000	318	380	200.0	2.64
HP11321-G352A- □□□□	19.5	15.0	1.3	7.1	3500	322	380	233.3	2.64
HP11324-G152A- □□□□	28	9.7	2.9	4.4	1500	303	380	100.0	2.98
HP11324-G202A- □□□□	26	12.0	2.2	5.4	2000	307	380	133.3	2.98
HP11324-G302A- □□□□	24	16.0	1.5	7.5	3000	315	380	200.0	2.98
HP11324-G352A- □□□□	22	17.3	1.3	8.1	3500	311	380	233.3	2.98

Use conditions: the driver's carrier frequency is more than or equal to 4kHz.

Test conditions:
1.Motor tested in horizontal position in free still air, ambient temperature 30°C
2.Motor flanged (Tflange = 30°C)
3.Typical data tolerance +/- 10%
4.Treshold of built in PTC 130°C
5.Chopper frequency 8kH





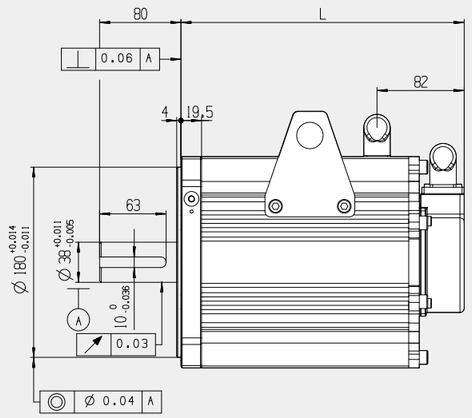
Motor model	HP11309	HP11312	HP11315	HP11318	HP11321	HP11324
L	250	276	302	328	354	380

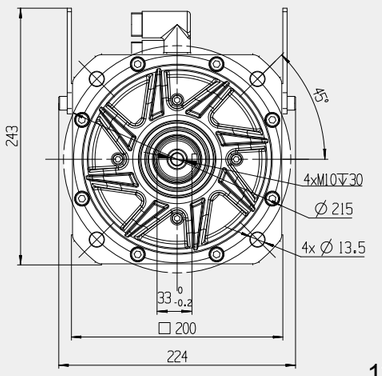
HP118-A

Model	Rated torque (Nm)	Rated current (A)	KT (Nm/A)	Rated power(kW)	Rated speed(rpm)	Back EMFf (Hz)	Power level (V)	Rated frequency f(Hz)	Inertia ($kg.m^2.10^{-3}$)
HP11803-G152A- □□□□	26	8	3.3	4	1500	100.0	380	314	3.2
HP11803-G202A- □□□□	24	10	2.4	5	2000	133.3	380	316	3.2
HP11803-K302A- □□□□	22	14	1.6	7	3000	200.0	380	337	3.2
HP11803-G352A- □□□□	20	14.5	1.4	7.3	3500	233.3	380	328	3.2
HP11804-G152A- □□□□	39	12.5	3.1	6	1500	100.0	380	312	5.5
HP11804-G202A- □□□□	36	15	2.4	7.5	2000	133.3	380	305	5.5
HP11804-K302A- □□□□	33	21	1.6	10.5	3000	200.0	380	335	5.5
HP11804-K352A- □□□□	30	22	1.4	11	3500	233.3	380	342	5.5
HP11805-G152A- □□□□	52	16.5	3.2	8.5	1500	100.0	380	304	7.8
HP11805-G202A- □□□□	48	20	2.4	10	2000	133.3	380	313	7.8
HP11805-K302A- □□□□	44	27.5	1.6	14	3000	200.0	380	334	7.8
HP11805-G352A- □□□□	40	29.5	1.4	14.5	3500	233.3	380	325	7.8
HP11807-G152A- □□□□	65	20.5	3.2	10	1500	100.0	380	311	10.1
HP11807-G202A- □□□□	60	25	2.4	12.5	2000	133.3	380	322	10.1
HP11807-K302A- □□□□	55	34.5	1.6	17	3000	200.0	380	348	10.1
HP11807-G352A- □□□□	50	36.5	1.4	18.5	3500	233.3	380	325	10.1
HP11808-G152A- □□□□	78	24.5	3.2	12	1500	100.0	380	310	12.4
HP11808-K202A- □□□□	72	30	2.4	15	2000	133.3	380	331	12.4
HP11808-K302A- □□□□	66	41.5	1.6	20.5	3000	200.0	380	334	12.4
HP11808-K352A- □□□□	60	44	1.4	22	3500	233.3	380	340	12.4

Use conditions: the driver's carrier frequency is more than or equal to 4kHz.

Test conditions:
1.Motor tested in horizontal position in free still air, ambient temperature 30° C
2.Motor flanged (Tflange = 30°C)
3.Typical data tolerance +/- 10%
4.Treshold of built in PTC 130° C
5.Chopper frequency 8kHz





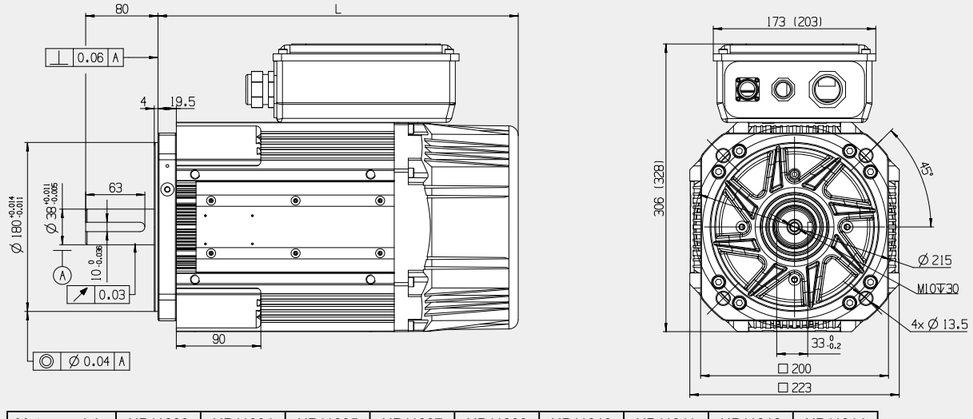
Motor model	HP11803	HP11804	HP11805	HP11807	HP11808
L	268	304	340	376	412

A List of Motor Parameters and Shapes

HP118-F

Model	Ratedtorque (Nm)	Rated current (A)	KT (Nm/A)	Rated power (kW)	Rated speed (rpm)	Back EMF EMK(V)	Power level (V)	Rated frequency f(Hz)	Inertia ($kg.m^2.10-3$)
HP11803-G152F-□□□□	46	14	3.3	7	1500	100	380	314	5.5
HP11804-G152F-□□□□	69	21.5	3.2	11	1500	100	380	312	7.8
HP11805-G152F-□□□□	92	28.5	3.2	14.5	1500	100	380	311	10.1
HP11807-G152F-□□□□	115	36	3.2	18	1500	100	380	311	12.4
HP11808-G152F-□□□□	138	43	3.2	21.5	1500	100	380	310	14.7
HP11810-G152F-□□□□	161	50	3.2	25.5	1500	100	380	313	16.9
HP11811-G152F-□□□□	184	57.5	3.2	29	1500	100	380	317	19.2
HP11812-G152F-□□□□	207	64.5	3.2	32.5	1500	100	380	310	21.5
HP11814-G152F-□□□□	230	72	3.2	36	1500	100	380	309	23.8
HP11803-G182F-□□□□	45	17	2.6	8.5	1800	120	380	318	5.5
HP11804-G182F-□□□□	67.5	25	2.7	12.5	1800	120	380	312	7.8
HP11805-G182F-□□□□	90	33.5	2.7	17	1800	120	380	315	10.1
HP11807-G182F-□□□□	112.5	42	2.7	21	1800	120	380	311	12.4
HP11808-G182F-□□□□	135	50.5	2.7	25.5	1800	120	380	310	14.7
HP11810-G182F-□□□□	157.5	59	2.7	29.5	1800	120	380	318	16.9
HP11811-G182F-□□□□	180	67.5	2.7	34	1800	120	380	314	19.2
HP11812-G182F-□□□□	202.5	76	2.7	38	1800	120	380	316	21.5
HP11814-G182F-□□□□	225	84	2.7	42.5	1800	120	380	309	23.8
HP11803-G202F-□□□□	44	18.5	2.4	9	2000	133.3	380	316	5.5
HP11804-G202F-□□□□	66	27.5	2.4	14	2000	133.3	380	312	7.8
HP11805-G202F-□□□□	88	36.5	2.4	18.5	2000	133.3	380	313	10.1
HP11807-G202F-□□□□	110	45.5	2.4	23	2000	133.3	380	311	12.4
HP11808-G202F-□□□□	132	55	2.4	27.5	2000	133.3	380	317	14.7
HP11810-G202F-□□□□	154	64	2.4	32.5	2000	133.3	380	321	16.9
HP11811-G202F-□□□□	176	73	2.4	37	2000	133.3	380	312	19.2
HP11812-G202F-□□□□	198	82	2.4	41.5	2000	133.3	380	310	21.5
HP11814-G202F-□□□□	220	92	2.4	46	2000	133.3	380	321	23.8

Use conditions: the driver's carrier frequency is more than or equal to 4kHz.
Test conditions:
1.Motor tested in horizontal position in free still air, ambient temperature 30°C
2.Motor flanged (Tflange = 30°C)
3.Typical data tolerance +/- 10%
4.Treshold of built in PTC 130° C
5.Chopper frequency 8kH

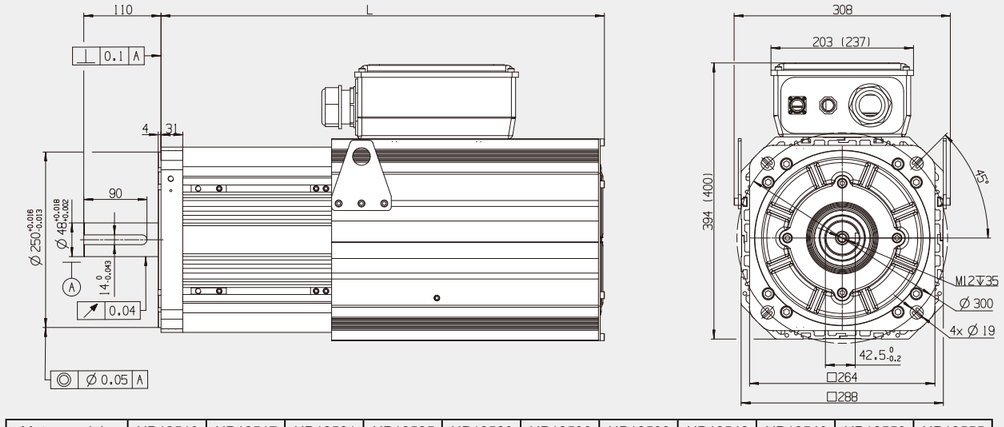


Motor model	HP11803	HP11804	HP11805	HP11807	HP11808	HP11810	HP11811	HP11812	HP11814
L	357	383	419	455	491	527	563	599	635

HP125-F

Model	Ratedtorque (Nm)	Rated current (A)	KT (Nm/A)	Rated power (kW)	Rated speed (rpm)	Back EMF EMK(V)	Power level (V)	Rated frequency f(Hz)	Inertia ($kg.m^2.10-3$)
HP12513-G152F-□□□□	171	52.0	3.29	27.0	1500	100	380	307	29.4
HP12517-G152F-□□□□	228	67.0	3.40	36.0	1500	100	380	317	37.8
HP12521-G152F-□□□□	285	86.0	3.31	45.0	1500	100	380	310	46.2
HP12525-G152F-□□□□	342	105.0	3.26	53.5	1500	100	380	304	54.6
HP12529-G152F-□□□□	399	118.5	3.37	62.5	1500	100	380	315	62.9
HP12533-G152F-□□□□	456	128.0	3.56	71.5	1500	100	380	314	71.4
HP12538-G152F-□□□□	513	149.5	3.43	80.5	1500	100	380	321	80.1
HP12542-G152F-□□□□	570	163.0	3.50	89.5	1500	100	380	326	88.6
HP12546-G152F-□□□□	627	179.5	3.49	98.5	1500	100	380	326	97
HP12550-G152F-□□□□	684	199.5	3.43	107.5	1500	100	380	321	105.4
HP12555-G152F-□□□□	741	224.0	3.31	116.5	1500	100	380	309	113.9
HP12513-G182F-□□□□	168	57.5	2.92	31.5	1800	120	380	328	29.4
HP12517-G182F-□□□□	224	77.0	2.91	42.5	1800	120	380	326	37.8
HP12521-G182F-□□□□	280	103.0	2.72	53.0	1800	120	380	305	46.2
HP12525-G182F-□□□□	336	116.0	2.90	63.5	1800	120	380	324	54.6
HP12529-G182F-□□□□	392	133.0	2.95	74.0	1800	120	380	330	62.9
HP12533-G182F-□□□□	448	147.0	3.05	84.5	1800	120	380	323	71.4
HP12538-G182F-□□□□	504	176.5	2.86	95.0	1800	120	380	321	80.1
HP12542-G182F-□□□□	560	196.0	2.86	105.5	1800	120	380	321	88.6
HP12546-G182F-□□□□	616	220.5	2.79	116.0	1800	120	380	313	97
HP12550-G182F-□□□□	672	252.0	2.67	126.5	1800	120	380	299	105.4
HP12555-G182F-□□□□	728	252.0	2.89	137.0	1800	120	380	324	113.9
HP12513-G202F-□□□□	166.5	65.0	2.56	35.0	2000	133.3	380	319	29.4
HP12517-G202F-□□□□	222	91.5	2.43	46.5	2000	133.3	380	302	37.8
HP12521-G202F-□□□□	277.5	115.0	2.41	58.0	2000	133.3	380	301	46.2
HP12525-G202F-□□□□	333	131.5	2.53	67.0	2000	133.3	380	315	54.6
HP12529-G202F-□□□□	388.5	154.0	2.52	81.5	2000	133.3	380	315	62.9
HP12533-G202F-□□□□	444	159.0	2.79	93.0	2000	133.3	380	329	71.4
HP12538-G202F-□□□□	499.5	194.0	2.57	104.5	2000	133.3	380	321	80.1
HP12542-G202F-□□□□	555	218.5	2.54	116.0	2000	133.3	380	317	88.6
HP12546-G202F-□□□□	610.5	249.5	2.45	128.0	2000	133.3	380	305	97
HP12550-G202F-□□□□	666	249.5	2.67	139.5	2000	133.3	380	330	105.4
HP12555-G202F-□□□□	721.5	291.0	2.48	151.0	2000	133.3	380	309	113.9

Use conditions: the driver's carrier frequency is more than or equal to 4kHz.
Test conditions:
1.Motor tested in horizontal position in free still air, ambient temperature 30°C
2.Motor flanged (Tflange = 30°C)
3.Typical data tolerance +/- 10%
4.Treshold of built in PTC 130° C
5.Chopper frequency 8kH



Motor model	HP12513	HP12517	HP12521	HP12525	HP12529	HP12533	HP12538	HP12542	HP12546	HP12550	HP12555
L	512	552	592	632	672	712	782	857	897	937	963

Haitian Drive Liquid Cooling Servo Motor

Product characteristics

Haitian Drive liquid cooling motor can be cooled by water cooling or oil cooling. It is a product developed for harsh environments such as textile mills, die-casting plants and aluminum profile plants, with the following characteristics:

> The rotor magnet of the motor is made of high-performance NdFeB permanent magnet material (with temperature resistance up to 180 °C), and the motor has the advantages of small size, high efficiency and fast response.

> According to the requirements of different customers, the motor can be designed to be of 2-5 times instantaneous overload, which has strong applicability.

> HP118-W motor adopts aluminum water-cooling machine shell, which has the advantages of light weight and good heat dissipation. HP125-W and HP130-W motors adopt steel water-cooling machine shell and can withstand high pressure.

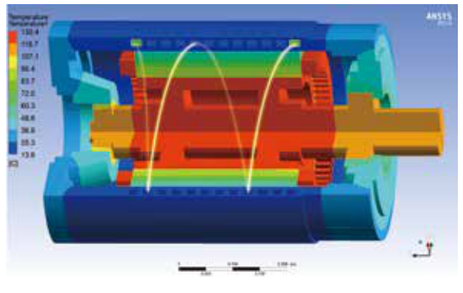
> The motor's coolant line adopts a spiral design, so that the contact area of the coolant is large, the diameter is large, and the cooling effect is good.

> The motor shell is made of seamless pipe and the coolant line is completely isolated from the internal electrical part of the motor. Even when the water line is damaged outward, it can be isolated from the charged body without damaging other parts of the motor and meet CE and UL safety standards.

Attention should be paid to the following when using

> Unless otherwise specified, the pressure range of the cooling fluid allowed to pass through the motor is 0.4-0.6Mpa and the temperature is 10-25C. If higher pressure is required, please specify the requirements for customization.

> The cooling medium can be hydraulic oil or deionized water. When oil cooling is used, the thermal conductivity is relatively poor and the working temperature of the motor is high. When water cooling is used, the heat dissipation effect is good, and the working temperature of the motor is low. Deionized water is required to prevent scaling of the cooling pipeline. If the motor is stopped at a low temperature for a long time, the cooling water must be drained in time to prevent the shell from being damaged by freezing.



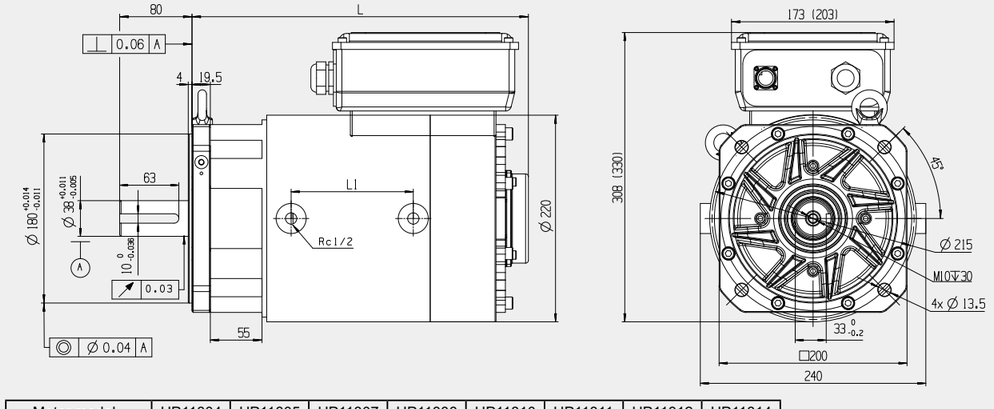
A List of Motor Parameters and Shapes

HP118-W

Model	Ratedtorque (Nm)	Rated current (A)	KT (Nm/A)	Rated power (kW)	Rated speed (rpm)	Back EMF EMK(V)	Power level (V)	Rated frequency f(Hz)	Inertia ($kg.m^2$)
HP11803-G152W-□□□□	46	14	3.3	7	1500	100	380	314	5.5
HP11804-G152W-□□□□	69	21.5	3.2	11	1500	100	380	312	7.8
HP11805-G152W-□□□□	92	28.5	3.2	14.5	1500	100	380	311	10.1
HP11807-G152W-□□□□	115	36	3.2	18	1500	100	380	311	12.4
HP11808-G152W-□□□□	138	43	3.2	21.5	1500	100	380	310	14.7
HP11810-G152W-□□□□	161	50	3.2	25.5	1500	100	380	313	16.9
HP11811-G152W-□□□□	184	57.5	3.2	29	1500	100	380	317	19.2
HP11812-G152W-□□□□	207	64.5	3.2	32.5	1500	100	380	310	21.5
HP11814-G152W-□□□□	230	72	3.2	36	1500	100	380	309	23.8
HP11803-G182W-□□□□	45	17	2.6	8.5	1800	120	380	318	5.5
HP11804-G182W-□□□□	67.5	25	2.7	12.5	1800	120	380	312	7.8
HP11805-G182W-□□□□	90	33.5	2.7	17	1800	120	380	315	10.1
HP11807-G182W-□□□□	112.5	42	2.7	21	1800	120	380	311	12.4
HP11808-G182W-□□□□	135	50.5	2.7	25.5	1800	120	380	310	14.7
HP11810-G182W-□□□□	157.5	59	2.7	29.5	1800	120	380	318	16.9
HP11811-G182W-□□□□	180	67.5	2.7	34	1800	120	380	314	19.2
HP11812-G182W-□□□□	202.5	76	2.7	38	1800	120	380	316	21.5
HP11814-G182W-□□□□	225	84	2.7	42.5	1800	120	380	309	23.8
HP11803-G202W-□□□□	44	18.5	2.4	9	2000	133.3	380	316	5.5
HP11804-G202W-□□□□	66	27.5	2.4	14	2000	133.3	380	312	7.8
HP11805-G202W-□□□□	88	36.5	2.4	18.5	2000	133.3	380	313	10.1
HP11807-G202W-□□□□	110	45.5	2.4	23	2000	133.3	380	311	12.4
HP11808-G202W-□□□□	132	55	2.4	27.5	2000	133.3	380	317	14.7
HP11810-G202W-□□□□	154	64	2.4	32.5	2000	133.3	380	321	16.9
HP11811-G202W-□□□□	176	73	2.4	37	2000	133.3	380	312	19.2
HP11812-G202W-□□□□	198	82	2.4	41.5	2000	133.3	380	310	21.5
HP11814-G202W-□□□□	220	92	2.4	46	2000	133.3	380	321	23.8

Use conditions: 1. the motor's carrier frequency is more than or equal to 4kHz; 2. cooling medium requirements: oil, flow ≥8L/min, oil pressure≤0.6Mpa, inlet oil temperature ≤50°

C.Test conditions:
1.Motor tested in horizontal position in free still air , ambient temperature 30°C
2.Motor flanged (Tflange = 30°C)
3.Typical data tolerance +/- 10%
4.Treshold of built in PTC 130° C
5.Chopper frequency 8kHz



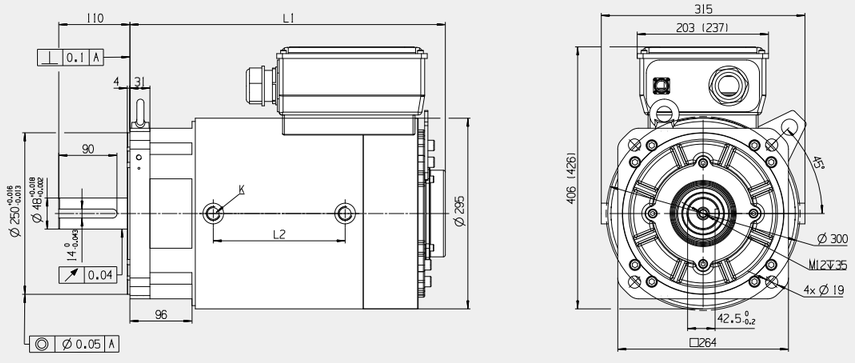
Motor model	HP11804	HP11805	HP11807	HP11808	HP11810	HP11811	HP11812	HP11814
L	286	322	358	394	430	466	502	538
L1	64	100	130	155	191	227	263	299

HP125-W

Model	Ratedtorque (Nm)	Rated current (A)	KT (Nm/A)	Rated power (kW)	Rated speed (rpm)	Back EMF EMK(V)	Power level (V)	Rated frequency f(Hz)	Inertia ($kg.m^2$)
HP12513-G152W-□□□□	171	52.0	3.29	27.0	1500	100	380	307	29.4
HP12517-G152W-□□□□	228	67.0	3.40	36.0	1500	100	380	317	37.8
HP12521-G152W-□□□□	285	86.0	3.31	45.0	1500	100	380	310	46.2
HP12525-G152W-□□□□	342	105.0	3.26	53.5	1500	100	380	304	54.6
HP12529-G152W-□□□□	399	118.5	3.37	62.5	1500	100	380	315	62.9
HP12533-G152W-□□□□	456	128.0	3.56	71.5	1500	100	380	314	71.4
HP12538-G152W-□□□□	513	149.5	3.43	80.5	1500	100	380	321	80.1
HP12542-G152W-□□□□	570	163.0	3.50	89.5	1500	100	380	326	88.6
HP12546-G152W-□□□□	627	179.5	3.49	98.5	1500	100	380	326	97
HP12550-G152W-□□□□	684	199.5	3.43	107.5	1500	100	380	321	105.4
HP12555-G152W-□□□□	741	224.0	3.31	116.5	1500	100	380	309	113.9
HP12513-G182W-□□□□	168	57.5	2.92	31.5	1800	120	380	328	29.4
HP12517-G182W-□□□□	224	77.0	2.91	42.5	1800	120	380	326	37.8
HP12521-G182W-□□□□	280	103.0	2.72	53.0	1800	120	380	305	46.2
HP12525-G182W-□□□□	336	116.0	2.90	63.5	1800	120	380	324	54.6
HP12529-G182W-□□□□	392	133.0	2.95	74.0	1800	120	380	330	62.9
HP12533-G182W-□□□□	448	147.0	3.05	84.5	1800	120	380	323	71.4
HP12538-G182W-□□□□	504	176.5	2.86	95.0	1800	120	380	321	80.1
HP12542-G182W-□□□□	560	196.0	2.86	105.5	1800	120	380	321	88.6
HP12546-G182W-□□□□	616	220.5	2.79	116.0	1800	120	380	313	97
HP12550-G182W-□□□□	672	252.0	2.67	126.5	1800	120	380	299	105.4
HP12555-G182W-□□□□	728	252.0	2.89	137.0	1800	120	380	324	113.9
HP12513-G202W-□□□□	166.5	65.0	2.56	35.0	2000	133.3	380	319	29.4
HP12517-G202W-□□□□	222	91.5	2.43	46.5	2000	133.3	380	302	37.8
HP12521-G202W-□□□□	277.5	115.0	2.41	58.0	2000	133.3	380	301	46.2
HP12525-G202W-□□□□	333	131.5	2.53	67.0	2000	133.3	380	315	54.6
HP12529-G202W-□□□□	388.5	154.0	2.52	81.5	2000	133.3	380	315	62.9
HP12533-G202W-□□□□	444	159.0	2.79	93.0	2000	133.3	380	329	71.4
HP12538-G202W-□□□□	499.5	194.0	2.57	104.5	2000	133.3	380	321	80.1
HP12542-G202W-□□□□	555	218.5	2.54	116.0	2000	133.3	380	317	88.6
HP12546-G202W-□□□□	610.5	249.5	2.45	128.0	2000	133.3	380	305	97
HP12550-G202W-□□□□	666	249.5	2.67	139.5	2000	133.3	380	330	105.4
HP12555-G202W-□□□□	721.5	291.0	2.48	151.0	2000	133.3	380	309	113.9

Use conditions: 1. the motor's carrier frequency is more than or equal to 4kHz; 2. cooling medium requirements: oil, flow ≥8L/min, oil pressure ≤0.6Mpa, inlet oil temperature ≤50°C.

Test conditions:
1.Motor tested in horizontal position in free still air , ambient temperature 30°C
2.Motor flanged (Tflange = 30°C)
3.Typical data tolerance +/- 10%
4.Treshold of built in PTC 130° C
5.Chopper frequency 8kHz



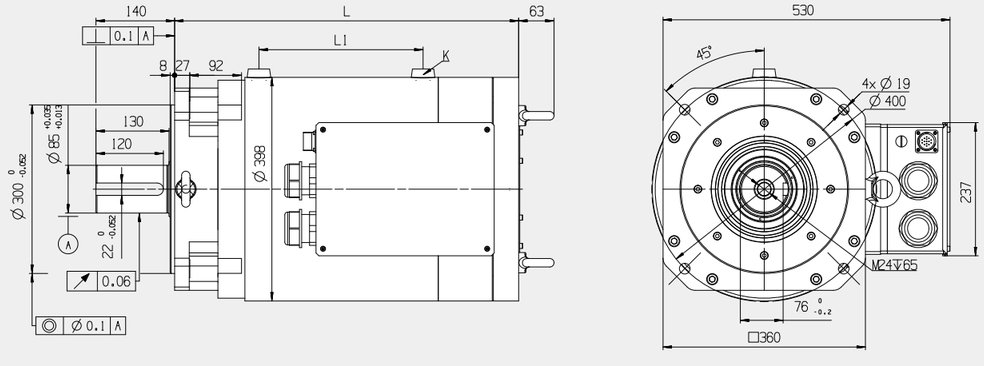
Motor model	HP12513	HP12517	HP12521	HP12525	HP12529	HP12533	HP12538	HP12542	HP12546	HP12550	HP12555
L1	368	408	448	488	528	568	638	713	753	793	833
L2	106	124	164	204	244	284	354	429	469	509	549
K	Rc1/2	Rc1/2	Rc1/2	Rc1/2	Rc3/4	Rc3/4	Rc3/4	Rc3/4	Rc3/4	Rc3/4	Rc3/4

HP130-W

Model	Ratedtorque (Nm)	Rated current (A)	KT (Nm/A)	Rated power (kW)	Rated speed (rpm)	Back EMF EMK(V)	Power level (V)	Rated frequency f(Hz)	Inertia ($kg.m^2$)
HP13036-G102W-□□□□	480	91	5.3	50	1000	100	380	330	0.261
HP13048-G102W-□□□□	640	123	5.2	67	1000	100	380	326	0.34
HP13060-G102W-□□□□	800	154	5.2	84	1000	100	380	326	0.418
HP13072-G102W-□□□□	960	190	5.1	101	1000	100	380	318	0.494
HP13084-G102W-□□□□	1120	224	5.0	117	1000	100	380	314	0.57
HP13096-G102W-□□□□	1280	247	5.2	134	1000	100	380	326	0.648
HP130U1-G102W-□□□□	1440	274	5.3	151	1000	100	380	330	0.726
HP130U2-G102W-□□□□	1600	308	5.2	168	1000	100	380	326	0.799
HP130U3-G102W-□□□□	1760	352	5.0	184	1000	100	380	314	0.877
HP130U4-G102W-□□□□	1920	411	4.7	201	1000	100	380	293	0.955
HP13036-G122W-□□□□	465	109	4.3	58	1200	120	380	323	0.261
HP13048-G122W-□□□□	620	150	4.1	78	1200	120	380	313	0.34
HP13060-G122W-□□□□	775	184	4.2	97	1200	120	380	318	0.418
HP13072-G122W-□□□□	930	218	4.3	117	1200	120	380	323	0.494
HP13084-G122W-□□□□	1085	266	4.1	136	1200	120	380	308	0.57
HP13096-G122W-□□□□	1240	299	4.1	156	1200	120	380	313	0.648
HP130U1-G122W-□□□□	1395	342	4.1	175	1200	120	380	308	0.726
HP130U2-G122W-□□□□	1550	399	3.9	195	1200	120	380	293	0.799
HP130U3-G122W-□□□□	1705	399	4.3	214	1200	120	380	323	0.877
HP130U4-G122W-□□□□	1860	479	3.9	234	1200	120	380	293	0.955
HP13036-G152W-□□□□	450	129	3.5	71	1500	150	380	330	0.261
HP13048-G152W-□□□□	600	179	3.4	94	1500	150	380	318	0.34
HP13060-G152W-□□□□	750	232	3.2	118	1500	150	380	306	0.418
HP13072-G152W-□□□□	900	258	3.5	141	1500	150	380	330	0.494
HP13084-G152W-□□□□	1050	332	3.2	165	1500	150	380	299	0.57
HP13096-G152W-□□□□	1200	387	3.1	188	1500	150	380	293	0.648
HP130U1-G152W-□□□□	1350	387	3.5	212	1500	150	380	330	0.726
HP130U2-G152W-□□□□	1500	465	3.2	236	1500	150	380	306	0.799
HP130U3-K152W-□□□□	1650	465	3.6	259	1500	150	380	336	0.877
HP130U4-G152W-□□□□	1800	581	3.1	283	1500	150	380	293	0.955

Use conditions: 1. the motor's carrier frequency is more than or equal to 4kHz; 2. cooling medium requirements: oil, flow ≥8L/min, oil pressure ≤0.6Mpa, inlet oil temperature ≤50°C.

Test conditions:
1.Motor tested in horizontal position in free still air , ambient temperature 30°C
2.Motor flanged (Tflange = 30°C)
3.Typical data tolerance +/- 10%
4.Treshold of built in PTC 130° C
5.Chopper frequency 8kHz



Motor model	HP13036	HP13048	HP13060	HP13072	HP13096	HP13096	HP130U1	HP130U2	HP130U3	HP130U4
L1	455	517	562	612	662	707	757	807	872	907
L2	143	219	235	292	342	392	442	492	542	594
K	Rc1/2	Rc1/2	Rc3/4	Rc3/4	Rc3/4	Rc3/4	Rc3/4	Rc3/4	Rc3/4	Rc3/4

A List of Motor Parameters and Shapes

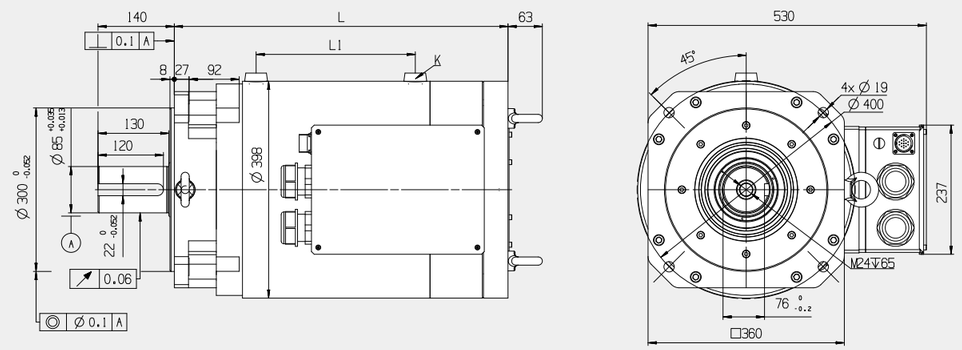
HP130-W

Model	Ratedtorque (Nm)	Rated current (A)	KT (Nm/A)	Rated power (kW)	Rated speed (rpm)	Back EMF EMK(V)	Power level (V)	Rated frequency f(Hz)	Inertia ($kg.m^2$)
HP13036-G182W-□□□□	435	150	2.9	82	1800	180	380	330	0.261
HP13048-G182W-□□□□	580	205	2.8	109	1800	180	380	323	0.34
HP13060-G182W-□□□□	725	250	2.9	137	1800	180	380	330	0.418
HP13072-G182W-□□□□	870	322	2.7	164	1800	180	380	308	0.494
HP13084-G182W-□□□□	1015	375	2.7	191	1800	180	380	308	0.57
HP13096-G182W-□□□□	1160	451	2.6	219	1800	180	380	293	0.648
HP130U1-G182W-□□□□	1305	451	2.9	246	1800	180	380	330	0.726
HP130U2-G182W-□□□□	1450	563	2.6	273	1800	180	380	293	0.799
HP130U3-G182W-□□□□	1595	563	2.8	301	1800	180	380	323	0.877
HP130U4-K182W-□□□□	1740	563	3.1	328	1800	180	380	352	0.955
HP13036-G202W-□□□□	420	168	2.5	88	2000	200	380	318	0.261
HP13048-G202W-□□□□	560	218	2.6	117	2000	200	380	326	0.34
HP13060-G202W-□□□□	700	272	2.6	147	2000	200	380	326	0.418
HP13072-G202W-□□□□	840	363	2.3	176	2000	200	380	293	0.494
HP13084-G202W-□□□□	980	436	2.2	205	2000	200	380	285	0.57
HP13096-G202W-□□□□	1120	436	2.6	235	2000	200	380	326	0.648
HP130U1-G202W-□□□□	1260	545	2.3	264	2000	200	380	293	0.726
HP130U2-G202W-□□□□	1400	545	2.6	293	2000	200	380	326	0.799
HP130U3-K202W-□□□□	1540	545	2.8	323	2000	200	380	359	0.877
HP130U4-G202W-□□□□	1680	726	2.3	352	2000	200	380	293	0.955

Use conditions: 1. the motor's carrier frequency is more than or equal to 4kHz; 2. cooling medium requirements: oil, flow ≥ 8L/min, oil pressure ≤ 0.6Mpa, inlet oil temperature ≤ 50°C.

Test conditions:

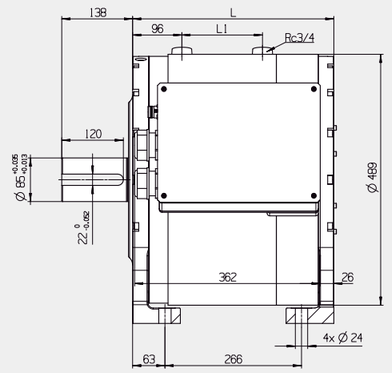
1.Motor tested in horizontal position in free still air , ambient temperature 30°C
2.Motor flanged (Tflange = 30°C)
3.Typical data tolerance +/- 10%
4.Treshold of built in PTC 130° C
5.Chopper frequency 8kHz

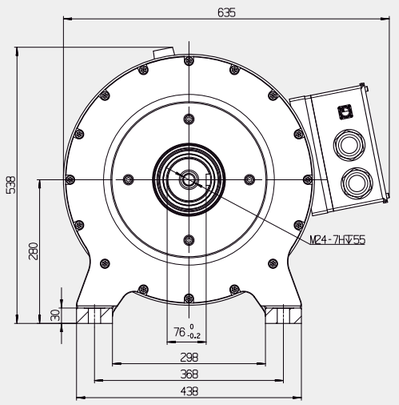


Motor model	HP13036	HP13048	HP13060	HP13072	HP13096	HP13096	HP130U1	HP130U2	HP130U3	HP130U4
L1	455	517	562	612	662	707	757	807	872	907
L2	143	219	235	292	342	392	442	492	542	594
K	Rc1/2	Rc1/2	Rc3/4	Rc3/4	Rc3/4	Rc3/4	Rc3/4	Rc3/4	Rc3/4	Rc3/4

HP145-W

Model	Ratedtorque (Nm)	Rated current (A)	KT (Nm/A)	Rated power (kW)	Rated speed (rpm)	Back EMF EMK(V)	Power level (V)	Rated frequency f(Hz)	Inertia ($kg.m^2$)
HP14540-K102W-□□□□	450	89	5.06	47	1000	100	380	344	0.75
HP14560-K102W-□□□□	676	134	5.06	71	1000	100	380	344	0.9
HP14580-G102W-□□□□	900	190	4.72	94	1000	100	380	321	1.05
HP145U1-G102W-□□□□	1125	243	4.64	118	1000	100	380	315	1.2
HP145U2-K102W-□□□□	1350	267	5.06	141	1000	100	380	344	1.35
HP145U3-G102W-□□□□	1575	333	4.72	165	1000	100	380	321	1.5
HP145U4-G102W-□□□□	1800	381	4.72	188	1000	100	380	321	1.65
HP145U5-G102W-□□□□	2025	444	4.56	212	1000	100	380	310	1.8
HP145U6-K102W-□□□□	2250	444	5.06	236	1000	100	380	344	1.95
HP145U7-G102W-□□□□	2475	534	4.64	259	1000	100	380	315	2.1
HP145U8-K102W-□□□□	2700	533	5.06	283	1000	100	380	344	2.25
HP14540-G122W-□□□□	442	109	4.05	56	1200	120	380	330	0.75
HP14560-G122W-□□□□	663	164	4.05	83	1200	120	380	330	0.9
HP14580-G122W-□□□□	884	218	4.05	111	1200	120	380	330	1.05
HP145U1-K122W-□□□□	1105	262	4.22	139	1200	120	380	344	1.2
HP145U2-G122W-□□□□	1326	328	4.05	167	1200	120	380	330	1.35
HP145U3-K122W-□□□□	1547	374	4.13	194	1200	120	380	337	1.5
HP145U4-G122W-□□□□	1768	437	4.05	222	1200	120	380	330	1.65
HP145U5-G122W-□□□□	1989	523	3.80	250	1200	120	380	310	1.8
HP145U6-G122W-□□□□	2210	524	4.22	278	1200	120	380	344	1.95
HP145U7-G122W-□□□□	2431	654	3.72	305	1200	120	380	303	2.1
HP145U8-G122W-□□□□	2652	655	4.05	333	1200	120	380	330	2.25
HP14540-K152W-□□□□	434	129	3.38	68	1500	150	380	344	0.75
HP14560-K152W-□□□□	650	198	3.29	102	1500	150	380	335	0.9
HP14580-K152W-□□□□	867	257	3.38	136	1500	150	380	344	1.05
HP145U1-G152W-□□□□	1085	335	3.24	170	1500	150	380	330	1.2
HP145U2-G152W-□□□□	1302	428	3.04	205	1500	150	380	310	1.35
HP145U3-G152W-□□□□	1519	516	2.94	239	1500	150	380	300	1.5
HP145U4-K152W-□□□□	1736	514	3.38	273	1500	150	380	344	1.65
HP145U5-K152W-□□□□	1953	642	3.04	307	1500	150	380	310	1.8
HP145U6-K152W-□□□□	2170	643	3.38	341	1500	150	380	344	1.95
HP145U7-K152W-□□□□	2387	672	3.55	375	1500	150	380	362	2.1
HP145U8-G152W-□□□□	2604	856	3.04	409	1500	150	380	310	2.25
HP14540-G182W-□□□□	425	157	2.70	80	1800	180	380	330	0.75
HP14560-K182W-□□□□	638	229	2.78	120	1800	180	380	340	0.9
HP14580-G182W-□□□□	850	315	2.70	160	1800	180	380	330	1.05
HP145U1-K182W-□□□□	1063	378	2.81	200	1800	180	380	344	1.2
HP145U2-G182W-□□□□	1275	503	2.54	240	1800	180	380	310	1.35
HP145U3-K182W-□□□□	1488	505	2.94	280	1800	180	380	360	1.5

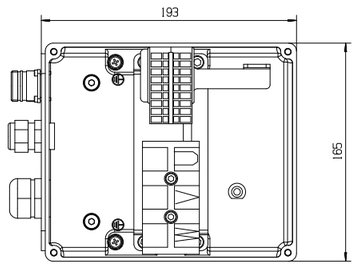




Motor model	HP14540	HP14560	HP14580	HP145U1	HP145U2	HP145U3	HP145U4	HP145U5	HP145U6	HP145U7	HP145U8
L	342	392	442	492	542	592	642	692	742	792	842
L1	107	157	207	257	307	357	407	457	507	557	607

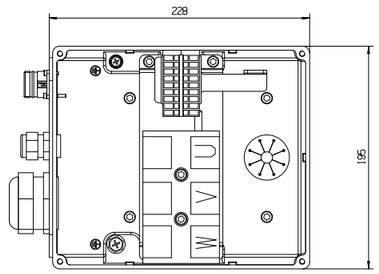
Motor Wiring: Power Supply

SIZE A



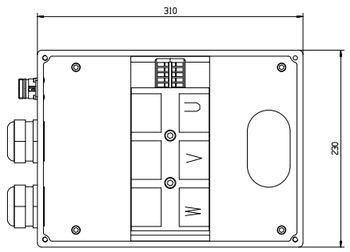
Rated current In (0-60A) can be equipped with
Tightening parts
PG21 (13-18mm)
PG29 (18-25mm)

SIZE B



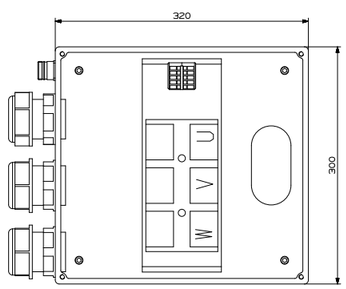
Rated current In (60-200A) can be equipped with
PG29 (18-25mm)
PG36 (22-32mm)
PG42 (32-38mm)
PG48 (37-44mm)

SIZE C



Rated current In (200-400A) can be equipped with
2XPG36(22-32mm)
2XPG42(32-38mm)
2XPG48(37-44mm)

SIZE D



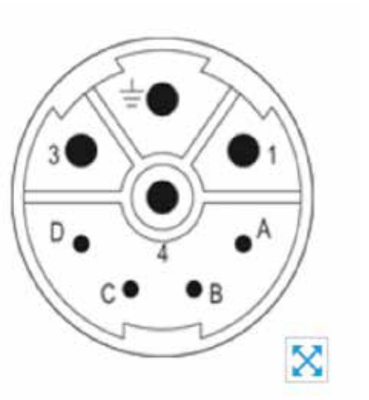
Rated current In (400-600A) can be equipped with
3XPG42 (32-38mm)

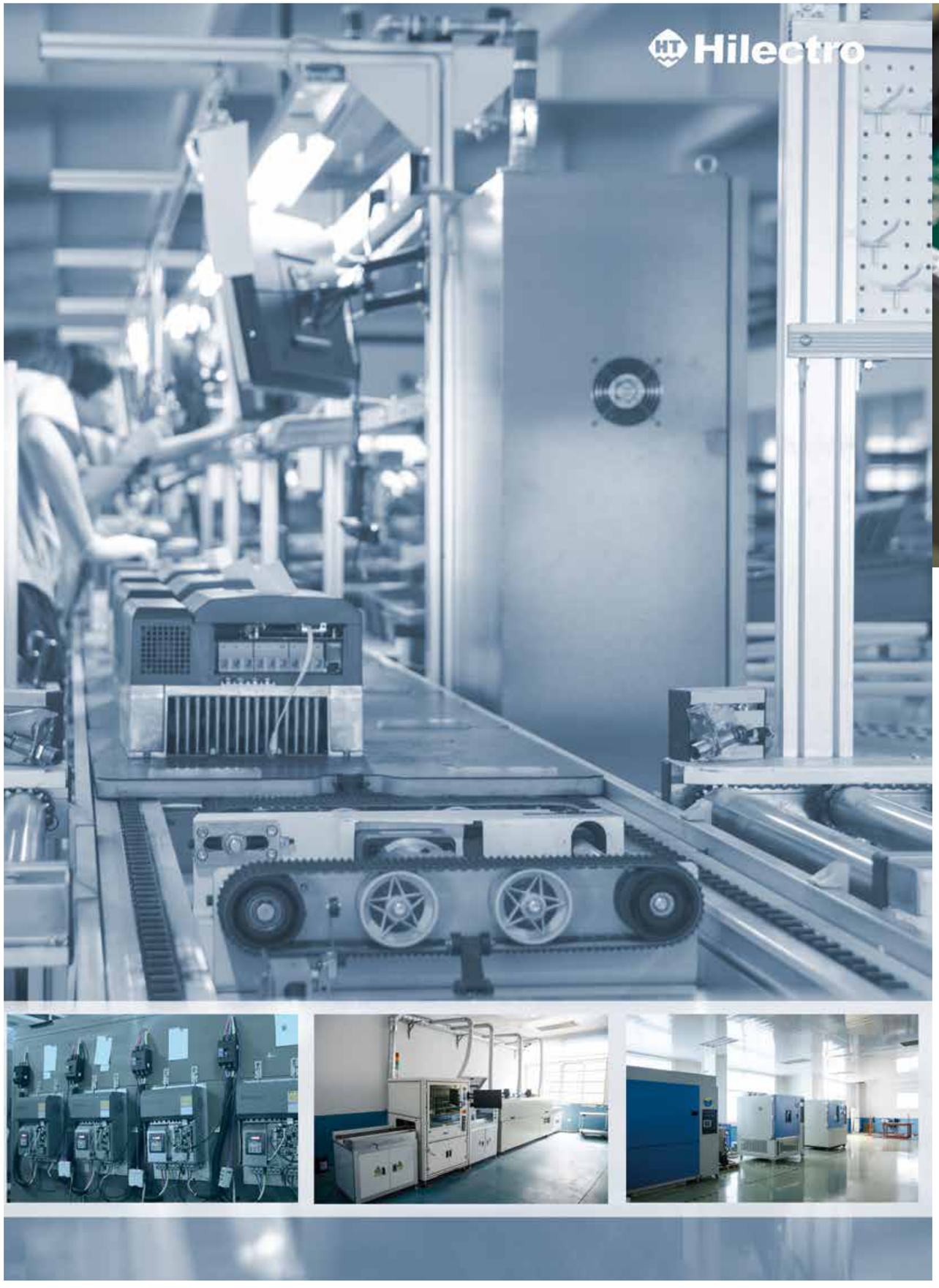
Motor Wiring: Signal

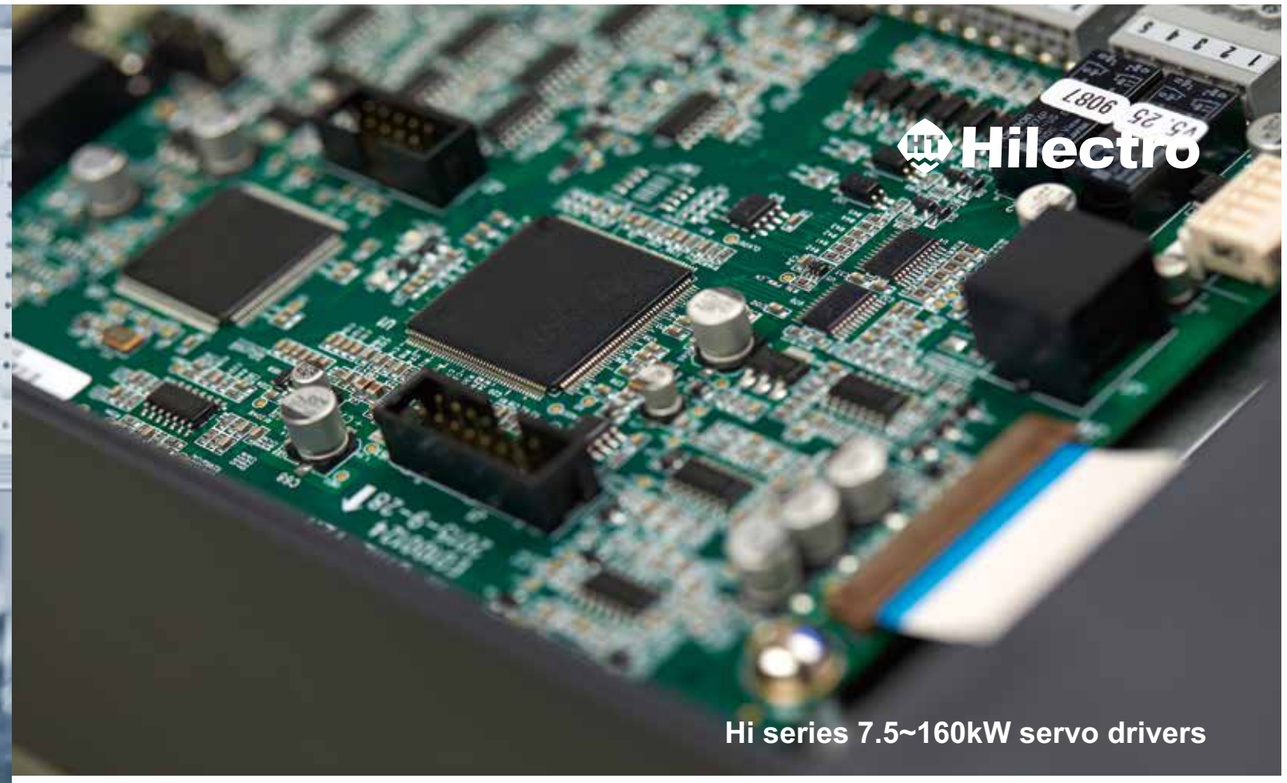
Signal socket: M23-17

Pin	Absolute value	Rotary transformer	Absolute value	Sine and cosine	Incremental
1	+Vcc sensor		Us	C-	
2				D-	+Vcc
3		cos+		A-	0V
4	0V sensor	cos-	GND	B-	A+
5	KTY		KTY		B+
6	KTY			C+	Z+
7	+Vcc	sin+	KTY	D+	A-
8	Clock+	sin-		A+	B-
9	Clock-			B+	Z-
10	0V				U-
11					V-
12	B+	ref+	sin+	+5V	W-
13	B-	ref-	sin-	0V	U+
14	DATA+	KTY	data+	R-	V+
15	A+	KTY	cos+	R+	W+
16	A-		cos-	KTY	KTY
17	DATA-		data-	KTY	KTY

1	U
2	GND
3	V
4	W
A	PTC
B	PTC
C	Break+
D	Break-







- AC380V class, built-in braking resistor for all liquid cooling models
- Support rotary, Heidehan ENDAT 2.1/2.2, sine and cosine encoders
- Support the output of the second encoder and incremental encoder
- Support multiple speed sources such as switch, analog, bus, etc.
- There is a built-in pressure closed loop to support multi-stage PID control
- IO port can be flexibly deployed to support logical operation
- Support MODBUS, CAN, EtherCAT and VARAN communication and be compatible with international mainstream protocols
- Excellent motor control accuracy and dynamic performance
- The software is completely self-developed, and the corresponding functions can be customized according to the user's needs. The supporting PC debugging software is powerful, user-friendly and easy to use.

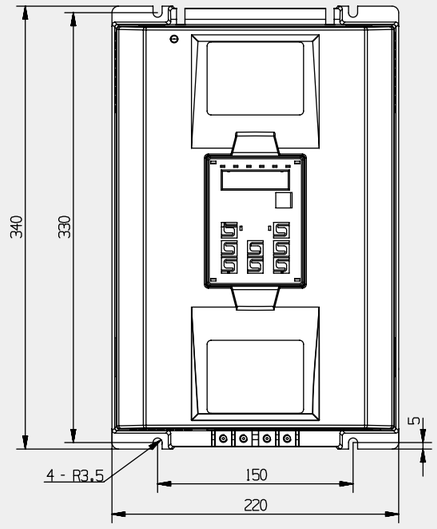
Hi Driver Naming Rules

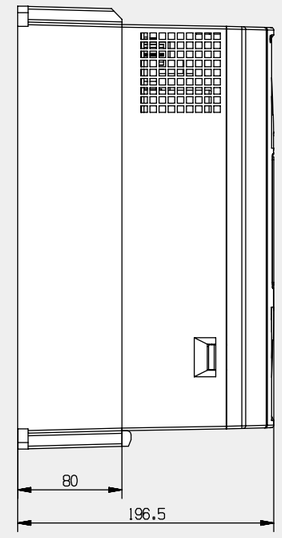
Hi2- 4 075 A 0 R 1 0 C X N**

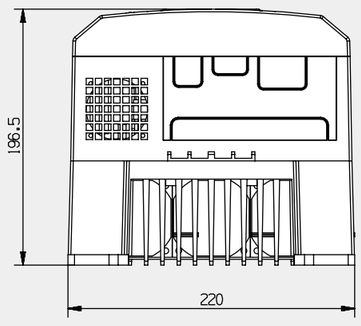
- Custom function (this bit is omitted in standard configuration) N: None D: 2nd encoder A: Analog output
- Reserved alternate code (omitable)
- Bus configuration
  C: CAN V: VARAN+CAN
  E: EtherCAT+CAN M: Modbus+CAN
- Temperature sensor interface
  0: PTC 1: KTY+PTC
- STO configuration:
  0: None 1: Yes
- Shell size code
  G: 7.5-18.5kW J: 18.5-30kW H: 30-37kW
  R: 37-90kW U: 110-160Kw
- Cooling mode
  0: air cooling 1: Back-mounted plate heat dissipation
  2: liquid cooling 3: Heat dissipation through walls
- Hardware version code
  A-Z
- Output power code
  7P5: 7.5kW 011: 11kW……160: 160k
- Voltage level
  4: 400V 2: 200V
- Product series
  20 : Standard 26 : Multifunctional I
  282: Multifunctional II

Hi7.5-11-15-18.5 Air Cooling

Model Hi2XX-4 □□□ XXXXXX		7P5	011	015	018
Shell code		G			
Maximum applicable motor power (kW)		7.5	11	15	18.5
Output	Rated output capacity (kVA)	11	17	21	24
	Rated output current (A)	16.5	25	32	37
	Overload capability	150%, 60S (more than 5Hz)			
	Maximum output voltage (V)	380 ~ 440V			
	Maximum output frequency (Hz)	400			
Input	Capacity of power supply equipment (kVA)	18	20	27	30
	Rated voltage	3-phase 380V ~ 440V			
	Permissible frequency fluctuation	50/60Hz ±5%			
	Permissible voltage fluctuation	-15% ~ 10%			
	Rated input current (A)	23	26	35	38.5





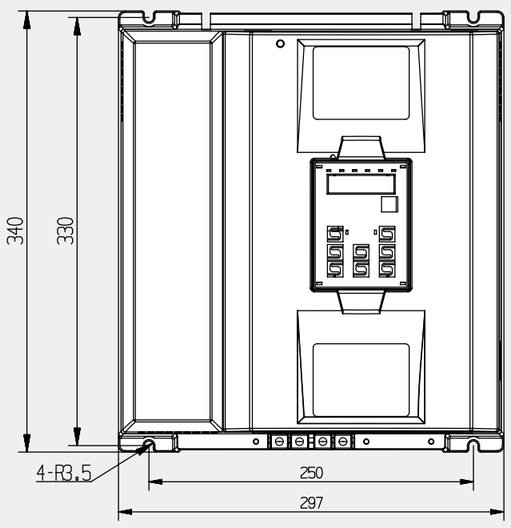


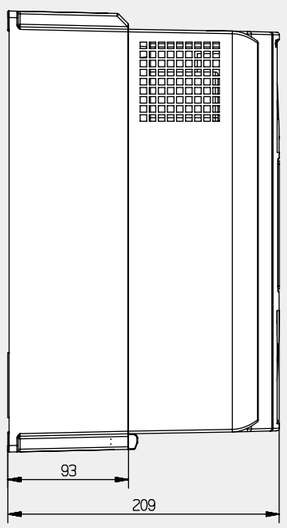
Hi18.5-22-30 Air Cooling

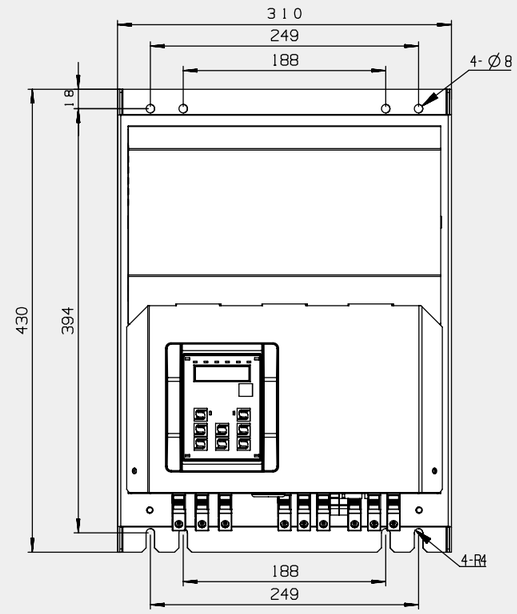
Model Hi2XX-4 □□□ XXXXXX		018	022	030
Shell code		J		
Maximum applicable motor power (kW)		18.5	22	30
Output	Rated output capacity (kVA)	24	30	40
	Rated output current (A)	37	45	60
	Overload capability	150%, 60S (more than 5Hz)		
	Voltage range	3-phase 380V - 440V		
	Maximum output voltage (V)	400		
Input	Capacity of power supply equipment (kVA)	30	36	48
	Rated voltage	3-phase 380V - 440V		
	Permissible frequency fluctuation	50/60Hz ±5%		
	Permissible voltage fluctuation	-15% ~ 10%		
	Rated input current (A)	38.5	46.5	62

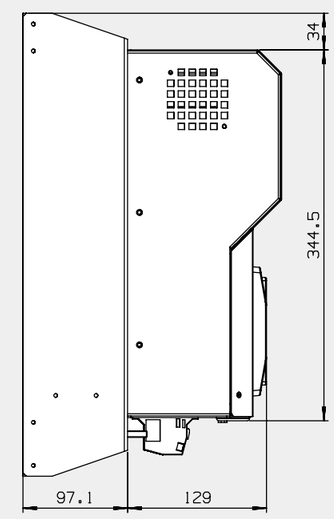
Hi30-37 Air Cooling

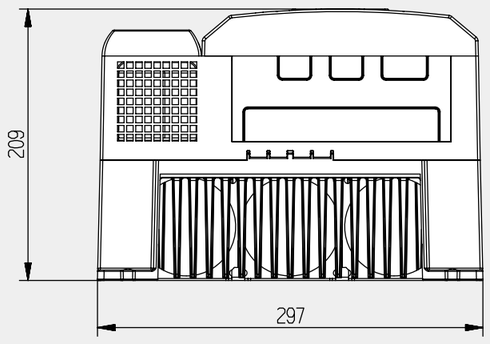
Model Hi2XX-4 □□□ XXXXXX		030	037
Shell code		H	
Maximum applicable motor power (kW)		30	37
Output	Rated output capacity (kVA)	40	50
	Rated output current (A)	60	75
	Voltage range	150%, 60S (more than 5Hz)	
	Maximum output voltage (V)	3-phase 380V - 440V	
	Maximum output frequency (Hz)	400	
Input	Capacity of power supply equipment (kVA)	51	64
	Voltage range	3-phase 380V - 440V	
	Permissible frequency fluctuation	50/60Hz ±5%	
	Permissible voltage fluctuation	-15% ~ 10%	
	Rated input current (A)	66	83

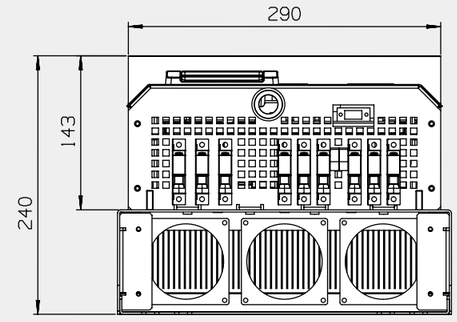






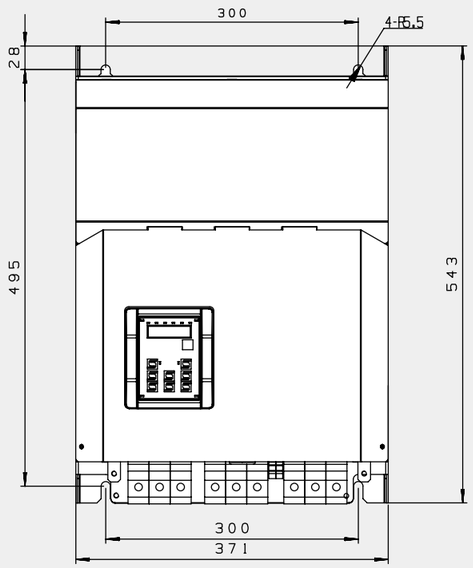


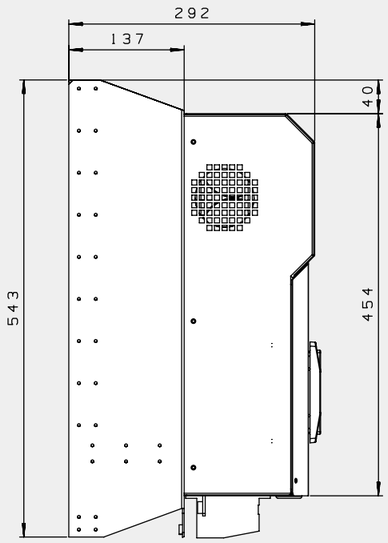


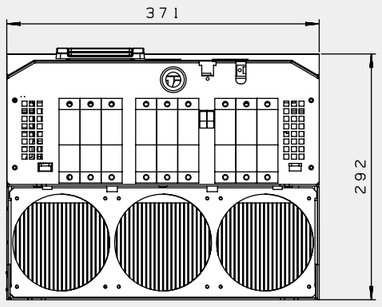


Hi37-45-55-75-90 Air Cooling

Model Hi2XX-4 □□□ XXXXXX		037	045	055	075	090
Shell code		R				
Maximum applicable motor power (kW)		37	45	55	75	90
Output	Rated output capacity (kVA)	50	60	76	99	119
	Rated output current (A)	75	90	115	150	180
	Overload capability	150%, 60S (more than 5Hz)				
	Voltage range	3-phase 380V-440V				
	Maximum output frequency (Hz)	400				
Input	Capacity of power supply equipment (kVA)	64	77	97	126	151
	Voltage range	3-phase 380V-440V				
	Permissible frequency fluctuation	50/60Hz ±5%				
	Permissible voltage fluctuation	-15% ~ 10%				
	Rated input current (A)	83	100	127	165	198

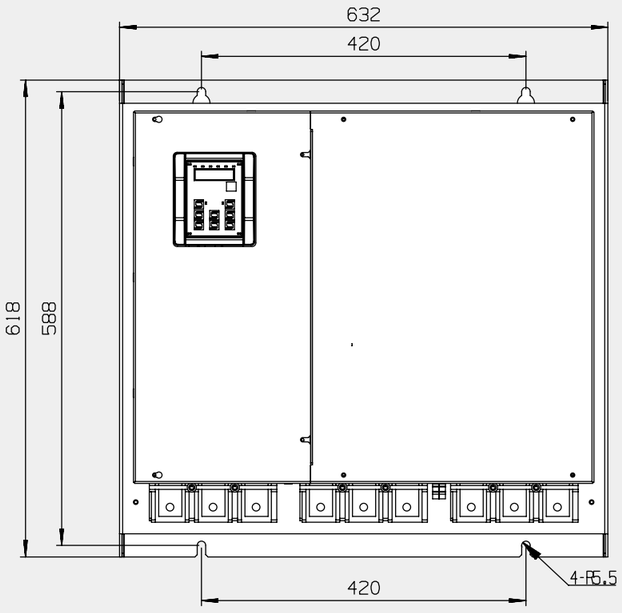


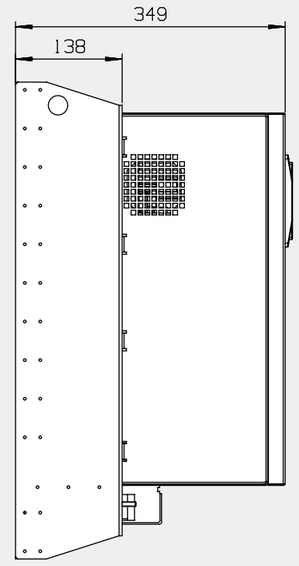


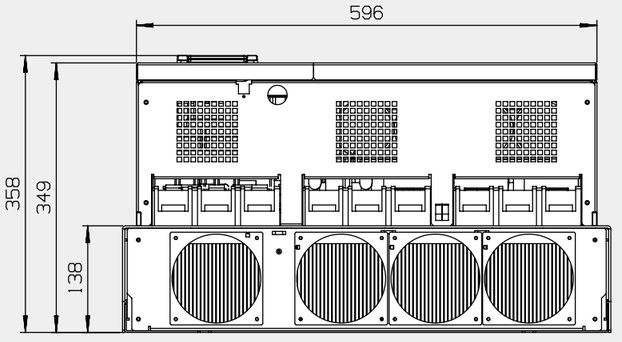


Hi110-132-160 Air Cooling

Model Hi2XX-4 □□□ XXXXXX		110	132	160
Shell code		U		
Maximum applicable motor power (kW)		110	132	160
Output	Rated output capacity (kVA)	139	165	198
	Rated output current (A)	210	250	300
	Overload capability	125%, 60S (more than 5Hz)		
	Voltage range	3-phase 380V - 440V		
	Maximum output frequency (Hz)	400		
Input	Capacity of power supply equipment (kVA)	177	210	252
	Voltage range	3-phase 380V - 440V		
	Permissible frequency fluctuation	50/60Hz ±5%		
	Permissible voltage fluctuation	-15% ~ 10%		
	Rated input current (A)	231	275	330

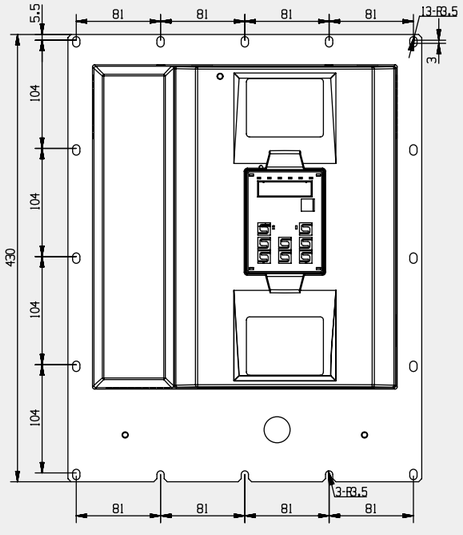


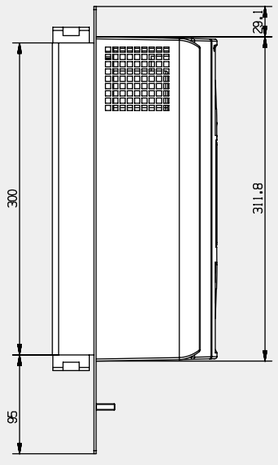


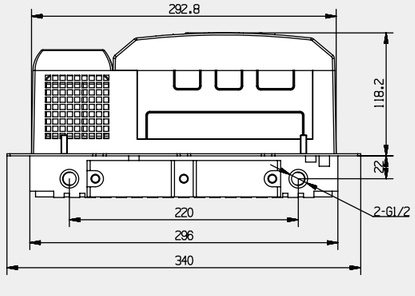


Hi18.5-22-30 Liquid Cooling

Model Hi2XX-4 □□□ XXXXXX		018	022	030
Shell code		J		
Maximum applicable motor power (kW)		18.5	22	30
Output	Rated output capacity (kVA)	24	30	40
	Rated output current (A)	37	45	60
	Overload capability	150%, 60S (more than 5Hz)		
	Voltage range	3-phase 380V - 440V		
	Maximum output frequency (Hz)	400		
Input	Capacity of power supply equipment (kVA)	30	36	48
	Voltage range	3-phase 380V - 440V		
	Permissible frequency fluctuation	50/60Hz ±5%		
	Permissible voltage fluctuation	-15% ~ 10%		
	Rated input current (A)	38.5	46.5	62

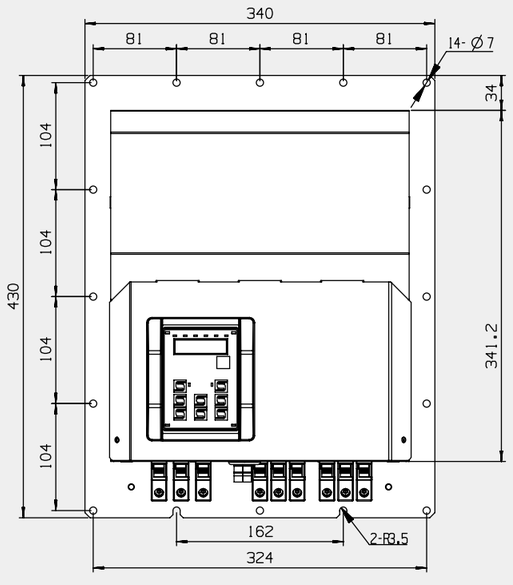


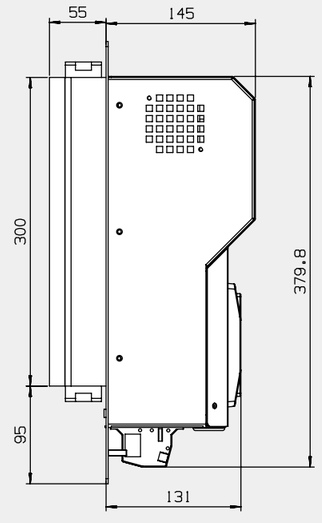


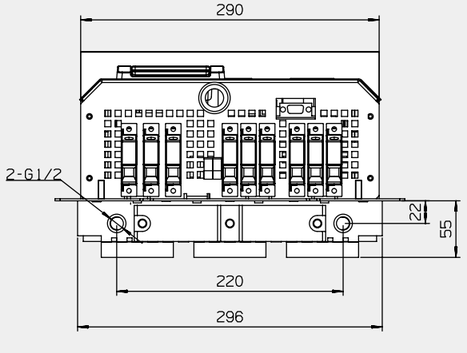


Hi30-37 Liquid Cooling

Model Hi2XX-4 □□□ XXXXXX		030	037
Shell code		H	
Maximum applicable motor power (kW)		30	37
Output	Rated output capacity (kVA)	40	50
	Rated output current (A)	60	75
	Overload capability	150%, 60S (more than 5Hz)	
	Voltage range	3-phase 380V - 440V	
	Maximum output frequency (Hz)	400	
Input	Capacity of power supply equipment (kVA)	51	64
	Voltage range	3-phase 380V - 440V	
	Permissible frequency fluctuation	50/60Hz ±5%	
	Permissible voltage fluctuation	-15% ~ 10%	
	Rated input current (A)	66	83

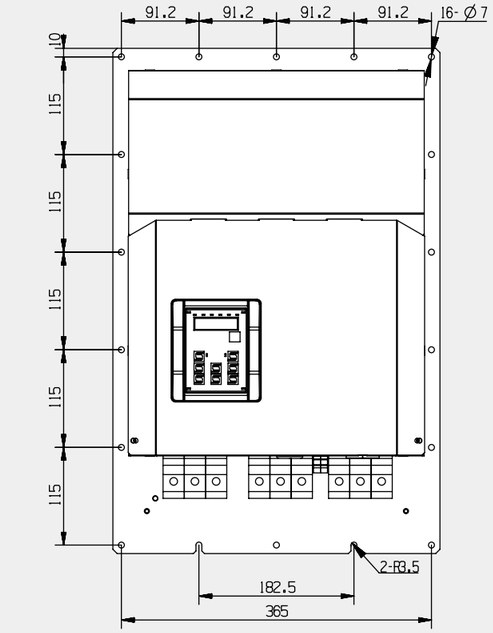


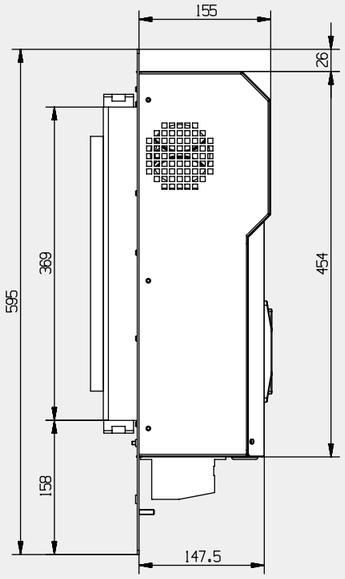


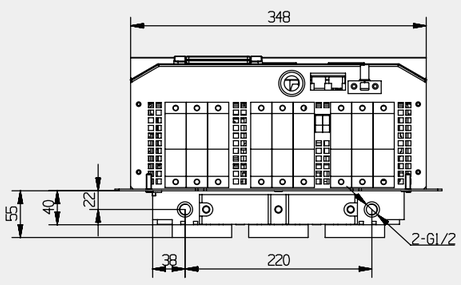


Hi37-45-55-75-90 Liquid Cooling

Model Hi2XX-4 □□□ XXXXXX		037	045	055	075	090
Shell code		R				
Maximum applicable motor power (kW)		37	45	55	75	90
Output	Rated output capacity (kVA)	50	60	76	99	119
	Rated output current (A)	75	90	115	150	180
	Overload capability	150%, 60S (more than 5Hz)				
	Voltage range	3-phase 380V - 440V				
	Maximum output frequency (Hz)	400				
Input	Capacity of power supply equipment (kVA)	64	77	97	126	151
	Voltage range	3-phase 380V - 440V				
	Permissible frequency fluctuation	50/60Hz ±5%				
	Permissible voltage fluctuation	-15% ~ 10%				
	Rated input current (A)	83	100	127	165	198

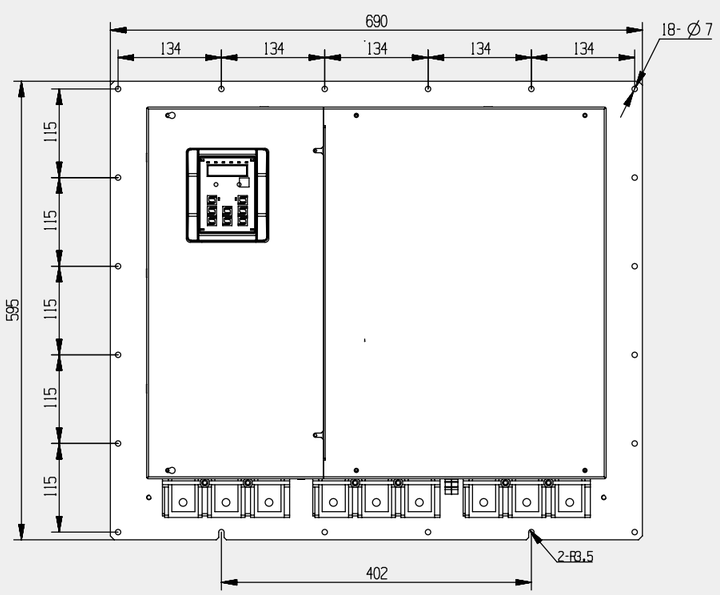


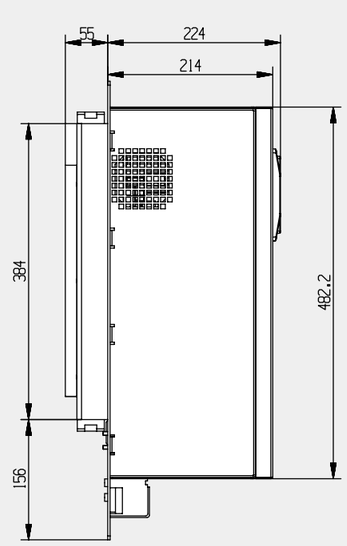


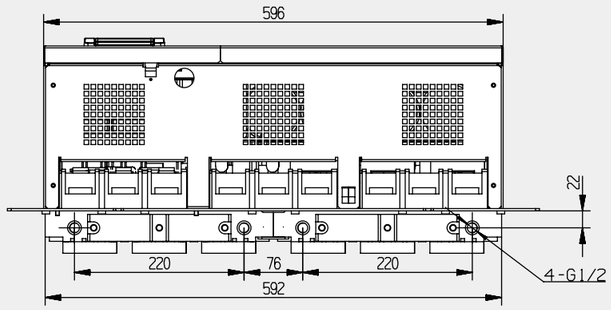


Hi110-132-160 Liquid Cooling

Model Hi2XX-4 □□□ XXXXXX		110	132	160
Shell code		U		
Maximum applicable motor power (kW)		110	132	160
Output	Rated output capacity (kVA)	139	165	198
	Rated output current (A)	210	250	300
	Overload capability	150%, 60S (more than 5Hz)		
	Voltage range	3-phase 380V - 440V		
	Maximum output frequency (Hz)	400		
Input	Capacity of power supply equipment (kVA)	177	210	252
	Voltage range	3-phase 380V - 440V		
	Permissible frequency fluctuation	50/60Hz ±5%		
	Permissible voltage fluctuation	-15% ~ 10%		
	Rated input current (A)	231	275	330







Note

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